CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.13/KRIDL/CEMENT/2014-15

Date: 30.07.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer**, Shettyhalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
NAME OF THE WORK	:	Reserve fund for emergency work in Ward no.13.(Desilting of secondary Drain & Construction of RCC Drain at Kalyananagara in 2nd cross near Karimariyamma Temple, Pipeline Road, in Ward No.13, in Shettyhalli Sub Division) BBMP, Bangalore.
REFERENCE	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 28.07.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	135 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	480 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	26.00 %	-

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

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Job No.: CTCE/BBMP/W.No.13/KRIDL/SAND/2014-15 : 30.07.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Reserve fund for emergency work in Ward no.13.(Desilting of secondary Drain & Construction of RCC Drain at Kalyananagara in 2nd cross near Karimariyamma Temple, Pipeline Road, in Ward No.13, in Shettyhalli Sub Division) BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 28.07.2014

Date of Testing : 30.07.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	96	4.80	4.80	95.2	90-100
2.36	198	9.90	14.70	85.3	75-100
1.18	512	25.60	40.30	59.7	55-90
600 Micron	412	20.60	60.90	39.1	35-59
300 Micron	496	24.80	85.70	14.3	8-30
150 Micron	215	10.75	96.45	3.6	0-10

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Job No.: CTCE/BBMP/W.No.13/KRIDL/AGG/2014-15 : 30.07.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager (West),** KRIDL, Bangalore.

Name of Work : Reserve fund for emergency work in Ward no.13.(Desilting of secondary Drain & Construction of RCC Drain at Kalyananagara in 2nd cross near Karimariyamma Temple, Pipeline Road, in Ward No.13, in Shettyhalli Sub Division) BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 28.07.2014

Date of Testing : 30.07.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	995	3.98	3.98	96.02	95-100
20	16240	64.96	68.94	31.06	30-70
10	4995	19.98	88.92	11.08	10-35
4.75	2495	9.98	98.90	1.10	0-5

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Job No.: CTCE/BBMP/W.No.13/KRIDL/STEEL/2014-15 30.07.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer**, Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the work	:	Reserve fund for emergency work in Ward no.13.(Desilting of secondary Drain & Construction of RCC Drain at Kalyananagara in 2nd cross near Karimariyamma Temple, Pipeline Road, in Ward No.13, in Shettyhalli Sub Division) BBMP, Bangalore.
Reference	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 28.07.2014
Date of Test	:	30.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	513	547	13.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.13/KRIDL/STEEL/2014-15 30.07.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the work	:	Reserve fund for emergency work in Ward no.13.(Desilting of secondary Drain & Construction of RCC Drain at Kalyananagara in 2nd cross near Karimariyamma Temple, Pipeline Road, in Ward No.13, in Shettyhalli Sub Division) BBMP, Bangalore.
Reference	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 28.07.2014
Date of Test	:	30.07.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	12	0.89	515	549	13.35	O.K	O.K

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Job No.: CTCE/BBMP/W.No.13/KRIDL/CUBE/2014-15

30.08.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager (West),** KRIDL, Bangalore.
Name of the work	: Reserve fund for emergency work in Ward no.13.(Desilting of secondary Drain & Construction of RCC Drain at Kalyananagara in 2nd cross near Karimariyamma Temple, Pipeline Road, in Ward No.13, in Shettyhalli Sub Division) BBMP, Bangalore.
Reference	: BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 28.07.2014
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	02.08.2014	30.08.2014	8.146	478.2	21.25
2	02.08.2014	30.08.2014	8.265	496.5	22.07
3	02.08.2014	30.08.2014	8.387	518.9	23.06

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Job No.: CTCE/BBMP/W.No.13/KRIDL/Pre slab/2014-15

06.08.2014

PRE CAST SLAB(CORE) TEST REPORT

Name of Client	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
Name of Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of work	:	Reserve fund for emergency work in Ward no.13.(Desilting of secondary Drain & Construction of RCC Drain at Kalyananagara in 2nd cross near Karimariyamma Temple, Pipeline Road, in Ward No.13, in Shettyhalli Sub Division) BBMP, Bangalore.
Referece	:	BBMP/AEE/SSD/DZ/PR/2014-15 Dated: 28.07.2014
No.of Sample Tested	:	03
Date of Testing	:	06.08.2014
Techinical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	78.00	0.385	2513.83	1.56	0.955	32.15	16.37	17.68	16.89	21.11
2	50.00	79.00	0.392	2527.14	1.58	0.960	33.65	17.14	18.51	17.77	22.21
3	50.00	80.00	0.405	2578.31	1.60	0.965	33.95	17.29	18.67	18.02	22.53

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